

US EPA ARCHIVE DOCUMENT

Ecoregion 67 – Ridge and Valley Overview – T.Sohl perspective

NOTE: This gives just a brief overview of the ecoregion based on the field trip of late September. A majority of the sampled areas were visited, with the exception of samples in the northeastern portion of the ecoregion (eastern Pennsylvania, as well as a small portion of southeastern New York and western New Jersey). Also note that no samples were drawn for areas of the ecoregion south of Knoxville, and none of the visited samples contained large urban centers.

Agriculture – Agriculture in various forms dominated valley areas of the ecoregion, while forest land dominated the ridges. We saw very different agricultural patterns as we moved south to north in this ecoregion. The southern portion of the ecoregion was characterized by very few planted crops, with valley agriculture dominated by pasture land. Pasture lands tended to be relatively small and shaped irregularly. The only crop that was commonly found in this portion of the ecoregion was tobacco. The tobacco fields tended to be extremely small, with most covering only a small fraction of a hectare. Barns with drying tobacco were found in close proximity to active tobacco fields. One surprising aspect of the tobacco fields was the wide variety in stages of growth. Despite the trip being in late September, numerous fields showed signs of being recently planted, with very small tobacco plants. Other fields were obviously recently harvested, with tobacco stacked in a pyramid shape and drying in the field. The southern portion of the ecoregion also contained large numbers of abandoned agricultural buildings, perhaps indicating a decline in agricultural activity in the area.

As we moved north, agricultural patterns changed dramatically. Tobacco became much less prevalent, while corn became the primary planted and harvested crop. Field size increased substantially, with very large fields of corn present. Large fields of alfalfa were also found in the northern part of the ecoregion, a crop that wasn't seen further south. Scattered soybean fields were also found in the north part of the ecoregion.

Scattered confinement operations (chickens and turkeys) were found throughout the ecoregion. A few areas had concentrations of such operations, including (surprisingly) a strip of confinement operations along a road in the largely forested areas of block 67-126 (in eastern West Virginia).

Grazing cattle were observed throughout the ecoregion, with a general pattern of increasing herd and operation size as we moved north. There were a few pockets with heavy concentrations of dairy herds, especially in the northern part of the ecoregion.

We also observed a few patches of apple orchards in the northern portion of the ecoregion, although it doesn't appear to be an economically significant factor in the ecoregion.

Forest / Logging – While agriculture dominated the valleys, forest dominated the ridges. Species dominating the southern areas were oaks, some pine, sweet gum, tulip trees, and

others, while maples, oaks, hemlock, and others were dominant in the north. Sycamore were often found in lowlands, walnut were often found along roads and near homesteads, while spruce were found on the higher ridge tops.

Very few areas of larger trees were seen. In general, tree size appeared to increase as we moved north to south in the ecoregion (my impression). Stands were often of one age/class structure.

Surprisingly (to me), we found little evidence of large-scale clear-cutting, especially in the southern portions of the ecoregion. Very few if any lumber trucks were seen in the south, we saw no large clear-cuts, and there was little (observed) evidence of timber-based industry. As we moved to the northern portion of the ecoregion, we saw a greater frequency of lumber trucks. We also observed a small number of lumber mills and lumber dependent industries. Some surprisingly large trees were seen on lumber trucks in the northern portion of the ecoregion, which appeared to be hardwoods.

TVA Influence – We found ample evidence of the influence of the TVA in the southern part of the ecoregion. It was hard to find a free flowing river in Tennessee, as most larger rivers were dammed. We observed a number of these dams. Power-line cuts were extremely common in eastern Tennessee...evidence of the generation and use of hydro-electric power.

Industry – Small pockets of industry were seen, but large-scale manufacturing generally wasn't prevalent in the visited sample blocks. Large-scale manufacturing was confined to areas near the larger urban centers, including eastern Tennessee around Knoxville/Bristol/Kingsport. A number of automobile related industries were observed in this area, as well as furniture and large appliance industries. Alcoa maintains a very strong presence in the Knoxville area. Elsewhere, munitions plants were seen near Blacksburg, while a number of small furniture factories were seen in other locations in the ecoregion as well.

Agri-business became more prevalent as we moved to the northern portions of the ecoregion. Grain elevators and the like, which were virtually non-existent in the south, became relatively common-place. As we reached the central and northern portions of the ecoregion, we also began to observe various food-processing plants.

In the center of the ecoregion, one unusual industrial area was observed. A very high concentration of medical supplies were manufactured and distributed from this area (Rachel and Michelle have the location).

Tourism – With the large number of national forests, recreational areas, and scenic trails, tourism is a locally important economic activity in many locations, e.g., as a primary entrance to the Smokies, the area east of Knoxville has a large tourism base. Scattered "tourist traps" can be found throughout the ecoregion. Historical sites in western Virginia and elsewhere also serve as a tourist draw.

Mining – With a few exceptions, we saw relatively few surface mining operations. Sand/Gravel/Cement operations were common near urban centers, as expected. Alcoa maintains a very large influence in the Knoxville area. Scattered throughout the ecoregion, we also saw mining operations involving limestone, silica, and other materials. The large-scale coal mining that occurs in adjacent ecoregions wasn't directly observed.

Urban – Residential – As you'd expect, the condition, size, and age of homes was strongly correlated to economic activity, with a very wide array of home size, age, and condition. For the most part, relatively few new suburban developments were seen in this ecoregion. The exception were a few scattered areas of newer and more expensive homes near the larger urban centers (Knoxville area, Blacksburg, etc) and the scattered industrial areas (e.g., eastern Tennessee, near the large medical supplies area, etc.). However, older homes predominated, with some maintained in excellent condition and others which have been allowed to deteriorate greatly. Rural homes in the southern part of the ecoregion were in general smaller, older, and in poorer shape than their counterparts in the northern part of the ecoregion, probably due to the variations in crop type (tobacco vs. corn) and field size (fraction of a hectare to many hectares) between the two areas.

No large urban centers were located within the visited sample blocks. However, we did pass through one larger city (Knoxville), and a number of smaller cities (Kingsport and Bristol in Tennessee, Blacksburg, Harrisonburg, Winchester in Virginia). These were some of the few areas with new suburban developments, and some of the few areas with larger, more expensive homes.

A large number of mobile homes were observed, especially in the southern part of the ecoregion, where strips of mobile home retailers were a common site along major highways.

Football (OOPS, I mean educational) Influences – A number of academic institutions were found within the ecoregion, influencing local economies where they're found (Knoxville and University of Tennessee, Blacksburg and Virginia Tech, Harrisonburg and James Madison University). One must question, however, whether a university that graduates 16% of it's football players (Tennessee) can really be called an "academic institution".

The region is a nationally important in the college football landscape. The University of Tennessee has been a traditional top 10 power in the 1990's, despite being regularly dismantled by the **Mighty Nebraska Cornhuskers** in various bowl games. Virginia Tech has been a top 20 power since the early 1990's, and despite being humiliated by the **Mighty Nebraska Cornhuskers** in the 1996 Orange bowl, have been a major influence in the National Championship race in the latter half of the 1990's.

Even James Madison has had an influence (direct or indirect) on these teams and the National Championship Race. James Madison, a Division 1-AA school, played Virginia

Tech in the first game of the 1999 season. James Madison plays for a lesser division than the 1-A level that Tennessee, Virginia Tech, and the **Mighty Nebraska Cornhuskers** play in. Thus, Virginia Tech's "strength of schedule" (SOS) rating was very low, and the SOS is a critical component in the BCS formula which decides who plays in the National Championship Game (also called the "**Cornhusker Invitational**"). This low SOS resulted in the **Mighty Nebraska Cornhuskers** being ranked higher than Virginia Tech in the BCS ratings. Come mid-November, it appeared the **Mighty Nebraska Cornhuskers** would be selected to participate in the National Championship Game (**Cornhusker Invitational**) instead of Virginia Tech or Tennessee.

In Mid-November, Roy Kramer, head of the BCS (often referred to without the "C" in the middle), decided to change the rules mid-season. Kramer, also head of the SEC (Tennessee's conference) and intensely jealous of the **Mighty Nebraska Cornhuskers**, announced that all games against Division 1-AA teams would NOT be counted in calculating the BCS rankings. Virginia Tech's strength-of-schedule was thus NOT negatively impacted by playing James Madison, resulting in a BCS ranking above the **Mighty Nebraska Cornhuskers**. Due to this unprecedented mid-season rule change, the **Mighty Nebraska Cornhuskers** were thus shut out of the **Nebraska Invitational** (national championship game) and were instead forced to thrash the hapless Tennessee Volunteers in the Fiesta Bowl.

Ecoregion 67, including the visited cities of Knoxville, Blacksburg, and Harrisonburg, thus has important ties to the **Mighty Nebraska Cornhuskers** and college football history.

Filename: Ecoreg 67 Trip Summary (Sohl).doc
Directory: G:\ECOREGIONS\eco67\field
Template: C:\Documents and Settings\mbarckho\Application
Data\Microsoft\Templates\Normal.dot
Title: Ecoregion 67 – Ridge and Valley
Subject:
Author: sohl
Keywords:
Comments:
Creation Date: 10/3/2000 11:04 AM
Change Number: 42
Last Saved On: 10/3/2000 3:22 PM
Last Saved By: sohl
Total Editing Time: 222 Minutes
Last Printed On: 2/4/2005 12:27 PM
As of Last Complete Printing
Number of Pages: 4
Number of Words: 1,658 (approx.)
Number of Characters: 9,073 (approx.)

RIDGE AND VALLEY ECOREGION: SOUTHERN ECOREGION FIELD TRIP

DARRELL NAPTON

Tom Loveland, Bev Friesen (sp), Dan Sechrist, and Darrell Napton
June 1-June 7, 2002. Conducted in conjunction with the southern Central Appalachians
ecoregion.

Southern Ridge and Valley Summary

Soils varied N-S

North-differences in the southern Ridge and Valley

- Soil quality seemed better in the north. We did not ascertain, whether soil differences were related to proportion of limestone, historic farming practices, climate, elevation (length of frost free season, or other reasons.
- Change in valley width
- Agriculture varies by proportion with higher proportions of trees and plantation pines in the south.
- Forestry. The southern part of the ecoregion has much, the north less. Look at the loblolly pine map to see if there is a correlation.
- Barbeques are found only in the southern portion of the ecoregion.
- Industry is common in the north part of the ecoregion in Pennsylvania and Virginia. (see notes on that separate field trip). Then there is a gap. Industry is common again in the southern part of the ecoregion around the cities of Knoxville, Chattanooga, and Birmingham.
- Reservoirs are common in the south. The Tennessee River and its tributaries in the south have commonly been dammed by the TVA. Historically this produced cheap hydropower. Today the lakes have become magnets for footloose families and young retirees who seek water oriented fun in a warm climate. The TVA also maintains a barge channel in most rivers and reservoirs in the Tennessee Basin. This has helped stimulate industry. In the north part of the ecoregion, the rivers go over the Fall Line. They have less water, fewer places to dam, and are separated from the coast by the Fall Line. Existing coastal cities would also have siphoned off much of the river traffic, plus there were few gaps in the mountains to the east and it was not practical to move goods west across the Cumberland Plateau.
- The southern rivers are less diverse and have been more heavily managed for game fish (introduced species)
- Climate varies north to south in terms of both precipitation and frost free days. The southern part of the ecoregion is warm enough for cotton and nearly-year round decomposers and parasites. The southern part also receives more rain, which exacerbates the leaching of soil nutrients.
- Limestone outcrops were only north of Knoxville.

- Vegetation. Conifers increase in proportion in the southern part of the ecoregion.
- The entire southern part of the Ridge and Valley (this field trip) is conducive to retirees.

Additional thoughts:

- The key variable may be the width of the valley.
- Interstates hold the region together. They also become catalysts of development when they cross major highways or pass through sizeable towns. In areas without a significant existing settlement and infrastructure, interstates may have little impact.
- The Ridge and Valley is a region of racetracks. There were at least four racetracks in the sample blocks and about fifty miles east of Birmingham on I-20 is the International Motorsports Hall of fame and the Talladega Super Speedway.
- There were no signs of forest companies (e.g. Georgia Pacific) even in areas with significant forests and forest harvest.
- The Ridge and Valley is an area of in migration, growth, and prosperity.

Out of Block

I-140 W from Knoxville. Wheat and hay. Extensive large lot subdivisions.

67-854

Tennessee. Knox County. Delorme 43. Knox and Anderson counties with a sliver in Roan county.

This block is just west of Knoxville and includes part of Oak Ridge National Laboratory. Interstate 75/40 slices through the southeast part of the block, which is also bisected by the Milton Hill Lake portion of the Clinch River.

What we saw

Waypoint 1 35.53.5 84.4.33

1. Sign: Vulcan Dixie Lee limestone quarry. A large limestone quarry. Some reclaimed land but we could not tell the quarry size nor size or reclamation.
2. Reclaimed part of Dixie Lee
3. Limestone quarry

Hay. Young deciduous trees. Scattered exurban development

Waypoint 2. 35.54.45 84.13.412

1. Pasture and woods mix. Tree reclaiming pasture.
2. Exurban house in meadow. New white fence (purely for show)
3. Old field or pasture. Trees taking over on hill.

Waypoint 3. Not take. Horses in overgrazed pasture.

Abandoned barn with silos.

Cedars.

Overgrazed pasture

Waypoint 4.

1. Abandoned concrete block barn with silo.

Waypoint 5.

1. Exurban mansion with windmill
2. Exurban mansion gate

Waypoint 6.

Did not take. Hardin Valley Elementary School.

Waypoint 7.

1. Sign. Fighting the Knoxville Beltway.

Waypoint 8.

DID NOT TAKE. BRIGHT FARMS RURAL SUBDIVISION. GET COPY.

Waypoint 9.

1. Rural subdivision
2. Road construction

In the higher elevations the pastures seem smaller and the tree cover greater.

Waypoint 10:

Pellissippi Tech. School. A small, new campus with open spaces new buildings and stub roads that indicate future construction plans. The land was state owned, so the institution is probably also a Tennessee institution.

1. Temporary buildings indicating growth faster than new buildings could be funded.
2. Performing arts Center

Waypoint 11. Pellissippi Tech.

1. Sign. Lamar Alexander A & S Building
2. Lamar Alexander building

Mixed deciduous and evergreen trees

Oak Ridge Area

Strip development into Oak Ridge. This was generally older stuff.

Waypoint 12

1. Research land use. Greenhouses. Unknown use. Land for sale near the Oak Ridge entrance.
2. Sign: Oak Ridge Wildlife mgt. area (across road from greenhouses)

High tech businesses.

Waypoint 13.

1. Bethel Valley Industrial Park owned by City of Oak Ridge.
2. High tech businesses in the park

Waypoint 14. Cryonmagnetics business

Block Summary

Look To the Future. This block is poised on the threshold of rapid change after a recent period of significant change. Old land uses appear to have been small farms that focused on cattle. We saw no current crop fields, but the significant number of solos indicates that grain for silage was grown at one time. None or only one of the silos was large. Flat land would have been at a premium for farming. Trees creeping into pastures were common.

This block is sandwiched between Knoxville and Oak Ridge National Laboratory.

1. Interstate highways are on the SE corner
2. New college (Pellissippi)
3. New beltway debate
4. Tom interpreted the block and said that for the Ridge and Valley it had a lot of change.
5. Significant amounts of land for sale in places
6. Much scattered exurban development and several new rural subdivisions in places

Out of Block

Delorme 59

Waypoint 15. Clinch River boating ramp.

Waypoint 16. Bull Run Steam plant on the Clinch River. Coal arrives by barge on the TVA water system. The electric lines run in the direction of Oak Ridge labs

Waypoint 17. Bull Run Steam plant close up.

Knox County.

Higher areas have some rock outcrops and a higher percentage of cedars.

Farmland mainly pasture with some hay.

Waypoint 18. Quarry fence. I marked on my Delorme. This quarry is only a short distance from an I-75 entrance ramp.

Block 67-819

Tennessee. Delorme 59. Anderson and Knox counties. The block is four miles north of Knoxville. The north end almost touches part of Norris Lake to the North. Interstate 75 lies less than two miles from the southwest corner of the block, and highway 33 lies along the south half of the eastern border.

What we saw

Tree creep on pastures

Waypoint 19.

1. Rural housing

Improved pasture. ALL the "farmsteads" are rural, nonfarm farms.

Heavily wooded on the ridges.

Anderson County

Waypoint 20. 1) road

Hay. Missionary Baptist church. Primitive Baptist Church.

Waypoint 21.) house. I did not take.

Waypoint 22. Farmette with pasture.

Hay. Improved pasture. Weeded grazed pasture. Hind's Creek Rd. had some places that looked more prosperous. Dead trees on and near the ridge lines. Cause of death unknown; tree species unknown.

Waypoint 23. 1) small garden and pasture in valley foreground with wooded ridges in the background.

Gravel quarry.

Waypoint 24. Hayfield

Block Summary

South edge of this block along 33 had much more flat land.

No tilled fields.

The most common (virtually all) church is Baptist. Most of these are either Primitive or Missionary Baptist.

Block 67-833

Tennessee. Delorme 59 & 60. Knox County. The block includes portions of H 131 and 441/33 that have direct access to Knoxville. Part of northern Knoxville lies within the block. I-640 curves along the southern border and I-40 lies less than two miles outside the block's southern edge.

What we saw

Highway 131

Waypoint 25. Emory Cove Condos on Emory Rd. 2 photos.

Waypoint 26. Royal Springs subdivision, approximately 5 years old.

Square hay bales.

Large lot strip housing on H. 131

Improved pasture, large and well kept is more common in this block.

Subdivisions

Waypoint 27. Victoria's Landing Planned Unit Development. Photo of a house. See trip file for a brochure.

Waypoint 28. Victoria's landing overview. This subdivision is for a rural starter home subdivision. The garages were for one car and the houses modest. There seemed to be no lot beyond the house, so most or all of the open land (with two small lakes in the middle) is owned in common.

Realtor sign.

Old substantial farm buildings.

Many Missionary and Primitive Baptist churches.

Waypoint 29. Not take.

Waypoint 30. Not take.

Lots of land for sale. Dynamic block just beyond the urban edge. The urbanizing frontier.

Exurban living changing to subdivisions.

Waypoint 31. Not take. Willow Springs subdivision.

Overgrazed pasture. Abandoned farm outbuildings.

Ridgeview Road: More strip housing. Mixture of normal and nice houses. Good views.

Waypoint 32. Into Beverly Park. 1. Hillcrest North hospital. This was an old hospital with its own water tower (in photo) and electrical plant behind (not visible). 2. Old barn and silo now part of a golf course/park. There is a public park winding through the golf/hospital area. 3. Golf course with housing in the background.

Waypoint 33. Not take. New house under construction.

Beverly Industrial Park. Triple-S Steel Supply. Many large, old buildings that were still being used.

Waypoint 34. Smurfit-Stone Company Container Division in Beverly Industrial Park.

Block Summary

A very dynamic block.

This block seemed to be an exurban area becoming a suburban area. Just outside the boundary we observed a large new bank and new strip mall. Many new subdivisions. Many of the churches appeared to be new or fairly recent. There was lots of land for sale. No tilled fields. One old, substantial farmstead.

On the Delorme map this block seems to have more flat land and to be more of a real valley with less hill country than the first two blocks. The Knoxville (and entire Ridge and Valley) settlement pattern is to have settlements funneled into the valleys and flatter lands with the larger valleys and flat areas being most amenable. This block seems to support that idea. The result is a modified distance decay situation with more distant areas being developed earlier and more completely if 1) they have good access (which here is a road following a valley) that may be somewhat independent from distance, and 2) flat land on which to build and develop.

Out of Block

Knoxville north on 81 is classic southern Ridge and Valley. The valley is hummocky with few areas that are truly flat. There was much farmland with hay and pasture.

Block 67-770

Delorme: Tennessee 62. Green, Washington, Sullivan, and Hawkins Counties.
Woolsey Rd. Rock outcropping. Methodist Church

What we saw

Left out—do we want this included?

Block 67-770 Summary

Delorme: Tennessee 62. Green, Washington, Sullivan, and Hawkins Counties.
I-81 slices through the block.

Dense rural housing north of Pine Grove. Pasture and overgrazed pasture. There were signs of farm consolidation or decline with abandoned and collapsed barns. Corn and fighting chickens were common along with pasture. The cropped fields were small and irregularly shaped. We saw signs of tree encroachment on old pastures, so the amount of forested land may be increasing. The M & M Farm Supply was a genuine farm supply business, but to make a profit it included a NAPA store and sold of bulk farm chemicals, but the storage tanks were relatively small (500-1,000 gallons).

This block had no land cover change. There was some new houses, but these appeared highgrading by local folks who saved their money and were able to construct a new house for themselves and abandon, sell, or rent the old one. Farming was concentrated in pasture and hay; we saw only one corn field, though we did observe one tobacco field just outside the block. The high proportion of grassland hints that most farmers have off-farm jobs. The block is only 12 miles from Johnson City and is even closer to Kingsport.

Block 67-759

Tennessee Delorme 63. Sullivan County.

This block is located in the middle of the Tri-Cities area of Johnson City, TN; Kingsport, TN; and Bristol TN and VA. I-81 is only a few miles from the block and the Tri-Cities airport is just outside it. Patrick Henry Lake on the South Fork of the Holston River is in the middle of the block.

What we saw

Left out—do we want this in the block summary?

Block 67-759 Summary

This was a dynamic block. We observed overgrazed pasture, mobile home parks, and tree encroachment on old pastures. There were abandoned barns and hay fields. This block also had some crops including corn.

Block 759 had more agriculture and the farming was more diverse than other blocks that we have so far seen in the southern half of the Ridge and Valley. There were many new houses both along Patrick Henry Lake and also along the rural roads of this block. Some of the houses were on large lots and we observed some lots of several acres that might look like hay fields to an interpreter.

The Tri-City Industrial park was large and growing. We observed several new buildings being constructed. This industrial park had few, if any, high tech occupants and some warehouse space including Fingerhut (which in 2002 has filed for bankruptcy).

Out of Block

Bristol Motor Car Speedway, just south of Bristol is an enormous facility that seats well over 100,000 spectators and has a separate drag racing track on the property.

Block 67-703

Virginia Delorme p. 21. Russell and Washington counties.

This block just east of Lebanon, Virginia includes part of Clinch Mountain and Jefferson National Forest. This seemed to be a relatively isolated area.

What we saw

Gauging station, brick house, rocky slopes, cedar slopes, abused pasture. Lots of pasture; much of it on steep slopes. Dense settlement pattern. Cedars of Lebanon. Houses encroaching on pasture. Spectacular view.

Block summary

A series of gradual transitions that led to balanced, low growth.

Not much change. Cedar was invading pasture and there was some new housing and some clear cutting.

A common land use/cover pattern in this block was pasture in the low areas, rocky slopes with hay higher, and trees above that.

Block 67-704

Virginia. Delorme 22. Washington and Russell counties. This is a relatively isolated area; Clinch Mountain made up most of the block.

What we saw

Old forestry road, small tilled field, and abandoned barns and silos.

Block summary

Much forest with little change either in or out of the forest. There are signs of forest roads, so any cutting must be on the ridge tops where we did not have access.

A pattern of land use here was for the ridge tops to be forested with the bottom portion in small pastures or mixed trees.

Block 67-713

Virginia. Delorme 22. Washington and Russell Counties. Clinch Mountain and Little Mountain make up about sixty percent of this block. 67-704 and 67-713 an adjacent block to the south with 67-703 an adjacent block to the west provide a transect from one valley over the mountains to Rich Valley. This block includes the northern exurban expansion of Albington and the farming areas of Rich Valley. Albington is on I-81 and is only about 10 miles northeast of Bristol.

What we saw

Small tobacco field, hay, abandoned house, tobacco, abused pasture, abandoned barn, improved hay, CRP or old pasture that is not hay that has the remnants of an old fence around it, dairy cows, lot of pasture, dairy, abandoned pasture with trees invading on the top portion and bushes on the bottom, dairy, goats, tobacco, abandoned pasture, overgrazed pasture. Northern suburbs of Albington. Albington Steel. Misty Mountain Spring Water. Enormous Food City warehouse.

Block Summary

The rural portions of this block were devoted to agriculture, much of it by full time farmers. This block had more cows than we had seen in any Ridge and Valley block so far. Some of the cattle were dairy cattle on dairy farms. There was modest exurban and edge expansion around the north edge of Albington. There was a large, recently constructed, industrial park where H-11 has a spur that connects to I-81.

Change was not striking in this block. Farming seemed stable. Modest urban growth was around Albington. The new industrial park, which had some large businesses, including an enormous Food City warehouse, and the proximity to I-81 may position this block to see continued growth.

Out of Block

Emory and Henry College in Smyth County just east of Albington.

Block 67-689

Virginia. Delorme 23. Both I-81 and Pine Ridge slice through this block.

What we saw

Half-mile dirt race track, an orchard (see Delorme for location) thinned forest, red soil, Great Valley farmland, hill and hill top where trees had been cut, corn planted in last year's wheat, wheat, wrapped hay, relatively lots of tilled land, dairy cows, improved pasture, forest conversion to pasture, Jefferson National Forest sign.

Block summary

This was a pleasant, open block that had no real change. It had more cropland than earlier blocks in the region.

Block 67-646

Virginia and West Virginia. Delorme Virginia 40. Mercer County, West Virginia and Giles and Bland counties Virginia.

Interstate 77 goes through the northwest part of this block and H-112 and H-62

What we saw

This end-of-the day block was cut short by rain.

Norfolk & Western mainline tracks that move coal from West Virginia coal mines to Hampton Roads for export. New house. Forested block. Sycamore trees looked bad. Blue Stone Quarries, houses along H-112. Norfolk & Western train with mixed cars/no coal. Crushed aggregate plant.

Block Summary

This Ridge and Valley block looked like a Central Appalachian block. The small valleys that ran through the block were on H-61 and 613, roads that we did not take. Aggregate mining was important. The area seemed to be poor. We did not see evidence of land changes.

Note

This field trip continued into the Central Appalachians ecoregion and then came back into Ridge and Valley in Tennessee.

Block 67-868

Tennessee. Delorme 44. Blount county with portions in Sevier and a tiny part in Knox county. This block is about 12 road miles from I-40. It is about 8 miles west of H-66 that connects I-40 to Pigeon Forge, Gatlinburg, and Great Smokies National Park. It is about 12 miles southwest of Douglas Lake on the French Broad River. The southern edge of Knoxville is about 8 miles to the north and Maryville is about 6 miles to the west. The block is mostly part of the valley but the southeast corner includes part of Chilhowee Mountain.

What we saw

Lots of rural nonfarm housing. Upscale area. A new rural subdivision on an old farm. Llamas. Lots of pasture and hay. White fence. Lots of new housing. Log house. New, rural farmettes, brush encroachment, abandoned silo, for sale signs on country roads, fences that had been removed in the past leaving rows of cedars, equestrian crossing, barn recycled into part of the equestrian area, rural subdivisions, and only 2 tilled fields,

Block Summary

This is an active block for new rural, nonfarm housing. We saw both single lots and subdivisions. Subdivisions were common along Ellejoy Road, which has a ridge that provides spectacular views of Chilhowee Mountain. Some of the block seemed to be affluent. In addition

to some nice house there was an English riding style equestrian center. The agricultural focus was on cattle and hay; we saw only two tilled fields.

This area is likely to continue to grow and lose farmland pastures to exurban houses and subdivisions. The block is physically attractive, is a short commute to Knoxville, and may appeal to some retirees who are enamored of either the nearby Smoky Mountains or the activities of Pigeon Forge (Dolly World), Gatlinburg, and their numerous spin-offs.

Block 67-914

Tennessee. Delorme 26. Polk, McMinn, and Bradley counties. This block is about 20 miles northeast of Chattanooga and four miles east of I-75. Cleveland, Tennessee (33,000 1990) lies between the block and Chattanooga and is about ten miles outside the block. The Cherokee National Forest ranges from two to six miles east of the block.

What we saw

Construction equipment. Chicken house, clear cuts, rural houses in the woods, chicken houses, dead trees, plantation, hay, cut area with brush piles, tree thinning, pine with sumac, clear cut in old farmstead (photo 230), more clear cuts, small sawmill, dairy heifers, hay, land auction sign, chickens, chickens, dairy, barn in the middle of wheat field with no till soy beans double-cropped, (no fences around the barn), chickens, hay, land for sale, clear cut, chickens.

The move from farms to forests may have been significant in this area. It may be worth checking McMinn county cropland acres.

Block Summary

This block is changing fast.

1. Massive clear-cutting.
2. Stable farming today with signs of recent turbulence, farm change, some massive change to trees, and perhaps slow farm decline. For example we saw a barn in the middle of a wheat field without any barn lots or fences. This farmer had recently changed from mixed farming to row crop farming. Other farmers had turned to poultry. Many of the farm buildings we saw were not well maintained. Tree plantations occupied old farms. This appeared to be a marginal farming area in which virtually all farmers had to change how they used the land. Most farmers probably practiced mixed farming, and changed to trees, chickens, crops, or dairy.

There were rural houses in the woods, but the density was low. The treed portion of the block is in the higher, western part. Hay and pasture dominated the eastern lower, flatter areas.

This block is an exception to the Ridge and Valley ecoregion up to this point.

Out of block

Bowater Pulp. Bradley County on the Hiwassee River (a reservoir) near its confluence with the Tennessee and about 20 miles NE of Chattanooga. This plant was less than ten miles west of the last block.

Block 67-910

Tennessee. Delorme 25. Hamilton County. This block is ten miles north of the Chattanooga urbanized area and is bisected by the Chickamauga Lake portion of the Tennessee River. We looked only at the western part of the block, which accounts for about four fifths of the block's land area. The four-lane highway 29/27 goes all the way through the western side of the block. The Sequoyah Nuclear Plant lies only two miles south of the block.

What we saw

More than 10 For Sale signs in only a few miles. Hay in small fields. New houses. One hundred forty-three acres for sale. Young tree plantation after cutting. Old farm house/silo now a rural, nonfarm house. Large new house on acres of grass. Methodist Church. Lots of mobile, modular, and informal/vernacular houses. Hay fields and trees encroaching into a pasture. Cows in a recently cleared pasture, and 2.5 acres recently bulldozed. Water recreation along Chickamauga lake, church camp, clear cut, hay, waterfront houses, lakeside campground, picnic tables, and RV park. Dense residential houses in places. Emerald Bay subdivision with homes beginning at \$200,000. This subdivision had sidewalks, street lights, mailboxes in front of the house, and a pool and clubhouse.

Block Summary

This block had a mixture of modest to mid-level (\$200,000) housing. How fast is the housing changing? The west edge of the block away from the water was rural with hay and pasture; near the water there was waterfront housing probably built during the last 30-40 years and some new subdivisions and houses away from the water. Emerald Bay subdivision appears to be targeting retirees with its emphasis on lighting, sidewalks, home mail delivery.

This block has a tension because of the close proximity of industrial forests, with its clear cutting of forests, to recreational and retirement housing. The block has both forest to forest and forest to housing land cover changes. The latter may not yet appear in the images. This may be the first sample that has both commercial forestry and recreation/housing growth.

This block may be poised for continued moderate to rapid, change associated both with forestry and low to moderate and in places high density, housing. The block is only a short distance from Chattanooga. The future street pattern may eventually look like the higher density pattern now found between Chattanooga and Sequoyah Nuclear Plant Access Road.

Regional comments

The area bounded by Chattanooga, Atlanta, Birmingham, and Huntsville seems to be changing rapidly and to have the potential for future change. None of these cities is more than 150 miles (city center to city center) from any of the others and Gadsden (39,000) sits in the middle. The area is rich in lakes, scenery, and apparently jobs.

Block 67-940

Georgia. Delorme 12. Chattoosa County with a sliver of Walker County. This block is about six miles southeast of Chattanooga. The eastern part of the block is Taylor Ridge. The west part is valley and small ridges.

What we saw

Food Lion strip mall, Baptist Church, Ringgold School (constructed in last 30 years), exurban subdivision, large lots, pasture, exurban subdivisions. High density in the north part of the block. Mixture of all house ages. Many lots for sale. Rural subdivision, hay, cattle, pasture, fiber optic line, rural subdivision, signs of plantation forestry, heavy tree cover, tree harvest, tree encroachment on fields, Ringgold Gas Company, tree encroachment, rural industry on Mt. Pisgah Road (Monroe Fabrications, steel and metal industries are common) new industrial agricultural building (probably poultry) barn and large pasture.

Block Summary

This block has a strong Chattanooga influence. Housing is of mixed ages, indicating that the area has been used by Chattanooga commuters for a long time. The land uses included residential, industrial, and forestry. The settlement pattern in this block is similar to the Piedmont.

This block shows a strong potential for continued change.

Block67-959

Georgia. Delorme 13. Gordon County.

This block is approximately halfway between Chattanooga and Atlanta. I-75 cuts through the southwest edge of the block in the northern suburbs of Calhoun (6,300).

What we saw

Gold Kist Hatchery, Gold Kist Elevator, Georgia Rug Mills, empty industrial facility, Bath Fashion Industry, Tabernacle of Praise, drag strip, Baptist Church, golf course, New Echota Cherokee Capital state historic site, corn, pasture, hay. Agriculture along the creeks. Hay, very large yard, pasture. Some substantial houses with multi-acre yards, some minimum houses. The houses are a mix of ages. Mobile homes. Paintball, industrial agriculture (probably poultry), recently cleared forest now a pasture, hay, exurban houses, older chicken building, forest, savanna, grass. Abandoned farmstead with a large, relatively new concrete silo. Longhorns, brush encroachment on pasture, pine plantation, Moss Creek Rural subdivision (modest houses with large yards) C & C Welding, Calhoun Plastics.

Block Summary

This block had a fair amount of industry, all of it old style Southern industry (low wage, semi-footloose or land dependent—plastics, textiles, agribusiness). The population density was variable with high density in places. There was lots of grass and pasture with a minimum amount tilled.

Out of block

The area around Calhoun, Adairsville, and Rome, Georgia is a region that appears to specialize in flooring products. We saw many businesses that specialized in carpeting, tiling, etc.

Block 67-1006

Alabama. Delorme 27. Cherokee and Etowah counties. This block is on the downstream side of Weiss Lake and is about six miles upstream from Gadsden. Gadsden is approximately midway between Atlanta and Huntsville and Chattanooga and Birmingham.

What we saw

Nursery, cotton, goats, an old Philips station/grocery, barn, cotton, cotton, hay, Weiss Lake lower dam (hydropower), wooded wetland, abandoned cotton gin (at Dixon Shop), corn, wheat, corn, old house, new house, beans double-cropped behind wheat, Missionary Baptist Church horses, and lots more cotton. The cotton is almost exclusively in the large fields that appear on the image. We have not seen similar large fields anywhere else in the southern Ridge and Valley. Cotton with grain bins in background, which indicates a transition from grain to cotton.

Block Summary

This region looks like it changed from grain to cotton. Agriculture is active. The reservoir had a minimum impact, perhaps because we were near and below the dam. The block was a simple, river bottom block.

Block 67-1025

Alabama. Delorme 26. Etowah and Calhoun Counties (about 6 miles from the 67-1006). This block is in the Gadsden area and included part of East Gadsden. As we approached the block on the road to Gadsden, highway 278 was being upgraded to four lanes. Part of East Gadsden and Glencoe are in the block.

What we saw

Future home of River Baptist Church, Ross Neely (a large plant) in Glencoe. A web search showed Ross Neely to be a trucking firm. The large plant did have many trucks, but it also seemed to have another purpose that we were unable to determine. Wood mill (at the plant with the Ross Neely sign). Frozen food warehouse, mobile home sales, Coosa Millwork, industrial park in Glencoe, Vulcan quarry in Glencoe, even aged trees in places, dense population along the highway. Rural large lot residences, new log house, pasture, Green Valley Speedway, regenerating clear cut. Rural housing of variable density. Woods and brush punctuated by lone houses and strips of houses. Pine plantations, large lot rural houses, new plantation house, corn, soybeans, boll weevil trap.

Block summary

Very diverse block. Change is related to 1) rural housing, and 2) forest harvesting. This block is ready for mor change. The block displayed a graduation from urban edge to exurban/rural.

Block 67-1045

Alabama. Delorme 31. St Claire County. This block, located about 10 miles in driving distance from Birmingham, is just barely east of I-59. It is a forested hilly block. Rain hindered and eventually curtailed our visit to this block.

What we saw

Clear cut, valley with moderate density housing. Sportsman's Road: gated house, forest, Sportsman's lake, reclaimed land beside the lake (Is the lake a strip pit? Was it an iron mine?). Many houses on roads near the lake; most were modest. Pine plantation, realty sign, new house in the trees, multiple new roads that have recently been bulldozed east of Low Gap about ½ miles south of the lake. All of these have realty signs. Is this area poised for massive development, or are the roads part of someone's dream that will never come true? Small pastures, clear cut with a realty sign, fighting chickens, logging truck, clear cut, pine plantation, large clear cut. Margaret, a black community. Generally a poor town with a poor church, but there were a few nice, new houses.

Block Summary

This area is near Birmingham, but it does not seem ready for massive residential development, even with the new roads in the forest. The block seems quiet in terms of human activity, but there is a substantial amount of clear cutting. The abundance of realty signs does hint that some number of persons may be charmed by this quiet area and its lake and forests.

Block 67-1081

Alabama. Delorme 31. Shelby county. East of Birmingham about 15 miles. Highway 280/38 goes through the south part of the block. This is a four lane, divided highway. This block is probably well within commuting distance of Birmingham, but is not attracting exurban residents. The apparently wealthy and highly desirable Chaba Valley lies just east of Birmingham, and Oak, Double Oak, Double Mountains further separate this area from the urbanized area. On the way to the block we took a detour into a Chaba valley subdivision, but it was gated. The area appeared to be massive, exclusive, and very wealthy. About four miles east of the block is the Childersburg Army Ammunition Plant. Massive Fort McClellan Military Reservation is just over 30 miles to the northeast and Anniston is only a few miles beyond. This block is about 16 miles from I-20.

The west sixty percent of the block is forested and the east is mixed with cleared land predominant. The soil, even where it was growing cotton appeared to be of poor quality.

What we saw

Forested valley, modest housing, one-person saw mill, concrete firm, mobile homes, houses in the woods, small lake, edge of pine plantation, gated community, barn. Livestock, hay, pasture with wooded hill. Pasture, mobile homes, cotton, hunting club in the forest, new pine on a clear cut hill, lots of cut trees, clear cut, hunting club sign, clear cut, lots of plantation pines, Rickey's B-B-Q (in Harpersville—this one looked authentic and used real wood). North of Harpersville: elementary school with new addition (growth?), new rural businesses, small cotton fields, old closed cotton gin.

Block Summary

There were many gated communities in and near the Birmingham blocks. This was the first time that we had seen gated communities in the southern Ridge and Valley.

The mosaic of the block was typical southern Ridge and Valley. Tall ridges, often out of sight behind hills or trees, bounded "valleys". These valleys, in turn were comprised of a series of

short ridges that were forested. The intervening valleys, which were seldom flat, typically had pasture, hay, and occasionally crops.

The clear cutting was dynamic in this block. There was some cotton and modest housing. The area looked stable and has modest potential for change.

Block 67-1073

Alabama. Delorme 31. St Clair and Shelby counties. This block corners 67-081. Highway 231 runs along its west edge. Part of Logan Martin Lake, including the dam, is in the block, and Interstate 20 is less than 20 miles to the north. Childersburg Army Ammunition Plant lies just south of the block and Fort McClellan Military Reservation and Anniston are less than 30 miles away. The block is probably within a one-hour commute of Birmingham fringe jobs.

What we saw

Pecan grove, nice improved pasture and thinned forest. Hanna Farms, a mobile/modular rural subdivision that was new and mostly undeveloped but had some houses and signs of activity. Boll weevil trap and cotton. Woods, pine plantation, Kelly Creek Boat Landing sign. Large sod farm. This was the worst looking sod farm that I have seen. Perhaps the soil was poor or the management bad. Logan Martin dam that produces hydropower. Men fishing below the dam. Sunset Hills, a new modular development in forest that has been cut. Lake shore houses.

Block Summary

Lots of new housing. This block is in the process of becoming urban. The recreation potential is probably the magnet. Much of the new housing was modest.

Out of Block

We saw a second sod farm. Is this a sod region?

Block 1043

Alabama. Delorme 31. Jefferson County with a slice of Blount County. Birmingham's is 15 south. The urbanized of Birmingham suburbs touches the south edge of the block.

What we saw

CR 30 had land purchased along the side for major road expansion. Steeple Chase Road and Polo Downs. Clay: new development, residential house with a zoning sign "proposed for commercial", drainage infrastructure being installed for development. Lots of older exurban housing being washed over by urbanization.

The northern part of the block had some rural areas that were beyond urbanization.

Block Summary

Very dynamic block undergoing massive change. This block became part of the exurban periphery for rural nonfarm houses, large lots lots for families that wanted horses or room for the family outdoors. This change probably started before 1970, but the density has probably steadily increased. Now the area is undergoing rapid urbanization, as it is being incorporated into the continuously built-up area of Birmingham's northern suburbs.

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Title: Ridge and Valley Ecoregion
Subject:
Author: Darrell Napton
Keywords:
Comments:
Creation Date: 6/1/2002 7:41 PM
Change Number: 69
Last Saved On: 6/14/2002 4:53 PM
Last Saved By: Darrell Napton
Total Editing Time: 1,768 Minutes
Last Printed On: 2/4/2005 12:28 PM
As of Last Complete Printing
Number of Pages: 15
Number of Words: 6,133 (approx.)
Number of Characters: 30,974 (approx.)